

## CLAMP ON HiTESTER SERIES

Field Measuring Instruments



A Full Line-up of Digital and Analog  
Clamp Meters to Suit Any Need



From Basic Testing to  
High Performance Analysis

# Selection Guide

## A Complete HIOKI Digital & Analog Clamp Tester

	3291-50 True RMS	3280-10 MEAN value 3280-20 True RMS	3281 True RMS 3282 True RMS	3287 True RMS 3288 MEAN value 3288-20 True RMS	3284 True RMS 3285 True RMS
AC Current ranges	60.00/600.0/1000 A AC	42.00/420.0/1000A AC	3281: 30.00/300.0/600A AC 3282: 30.00 /300.0/1000A AC	3287: 10.00/100.0A AC/ 3288/-20: 100.0/1000A AC	AC, AC+DC (True RMS or Peak value) 3284: 20.00/200.0A AC 3285: 200.0/2000A AC
Other current ranges	None	None	Wave peak value at AC Current 3281: 75.0 to 1000A peak, 3 ranges 3282: 75.0 to 1700A peak, 3 ranges	DC current range 3287: 10.00 or 100.0 A DC, 2 ranges 3288/-20: 100.0 or 1000 A DC, 2 ranges	DC (Average or Peak value) 3284: 20.00/200.0A DC 3285: 200.0/2000A DC
AC Voltage ranges	None	4.200/42.00/420.0/600V AC	300.0/600V AC	3287: 4.200/42.00/420.0/600V AC 3288/-20: 4.200/42.00/420.0/600V AC	AC, AC+DC (True RMS or Peak value) 30.00/300.0/600V AC
Other voltage ranges	None	DC voltage range: 420.0m/4.200/42.00/420.0/600V DC	Wave peak value at AC voltage up to 750/1000V peak	DC voltage range: 420.0m/4.200/42.00/420.0/600 V DC	DC (Average or Peak value) 30.00/300.0/600V DC
Other functions	None	Resistance: 420.0 to 42.00 MΩ, 6 ranges Accuracy: ±2.0 % rdg. ±4 dgt. (at 420 to 420 kΩ range) Continuity: 420.0Ω (Buzzer sounds less than approx. 50Ω ±40Ω)	Distortion check: 1 to 5 Crest factor Resistance: 1k or 10kΩ range Frequency: 30.0 to 1000 Hz Mode: Slow/Peak/C.F./RMS Record mode/Auto-off/Conduction	Resistance: 420.0Ω/4.200Ω/42.00kΩ/ 420.0kΩ/4.200MΩ/42.00MΩ Accuracy: ±2.0% rdg. ±4 dgt. (at 420 to 420kΩ range) Continuity: 420.0Ω (Buzzer sounds less than approx. 50Ω ±40Ω)	None
Analog output Printer output	None	None	None	None	DC, or AC 1V / f.s. Level output with REC mode Waveform output with MON mode
Basic accuracy (at 50 or 60Hz)	AC current: ±1.5 % rdg. ±5 dgt.	AC current: ±1.5 % rdg. ±5 dgt. AC voltage: ±2.3 % rdg. ±8 dgt. DC voltage: ±1.3 % rdg. ±4 dgt. Continuity: ±2.0 % rdg. ±6 dgt.	AC current: ±1% rdg. ±5 dgt. AC voltage: ±1% rdg. ±3 dgt. Peak: ±3% rdg. ±5 dgt. Frequency: ±0.3% rdg. ±1 dgt.	AC current: ±1.5 % rdg. ±5 dgt. AC voltage: ±2.3 % rdg. ±8 dgt. DC current: ±1.5 % rdg. ±5 dgt. DC voltage: ±1.3 % rdg. ±4 dgt. Continuity: ±2.0 % rdg. ±6 dgt.	AC current: ±1.3% rdg. ±3 dgt. AC voltage: ±1.0% rdg. ±3 dgt. Frequency: ±0.3% rdg. ±1 dgt.
Frequency characteristics AC current / voltage	45 to 400Hz	AC voltage: 50 to 500Hz AC current: 50 or 60Hz (3280-10) 40 to 1kHz (3280-20)	40 to 1000 Hz	AC current: 3287 DC, 10 to 1kHz AC current: 3288/-20 DC, 10 to 500Hz AC voltage: 30 to 500Hz	3284: DC, 10 to 2kHz 3285: DC, 10 to 1kHz
Sampling rate	Maximum 1.1 sec	2.5 times /sec or 1 time /3 sec	2 or 4 times /sec (Slow: 1 time /3 sec)	2.5 times /sec	2 or 4 times /sec (Slow: 1 time /3 sec)
Crest factor (RMS)	2.8 or less (1.68 at 1000 A range)	3280-10: Not defined 3280-20: 2.5 or less	3281: 2.5 (1.7 at 600A range) 3282: 2.5 (1.7 at 1000A range)	3287: 2.5 (150A, 100V maximum) 3288: Not defined 3288-20: 3 (1000A/2 max. voltage/1.5 max.)	3284: 2.5 (1.5 at 200A range) 3285: 2.5 (1.42 at 2000A range)
Effect of external magnetic fields	Yes; level not defined	Yes; level not defined	3281: 1.5A equivalent max. at 400 A/m 3282: 0.2A equivalent max. at 400 A/m	Yes; level not defined	3284: 0.5A equivalent max. at 400 A/m 3285: 2.0A equivalent max. at 400 A/m
Max. rated voltage to earth	600 V AC rms	600V AC rms	600V AC rms	600 V AC rms	600V AC rms
Measurement categories (A)	CAT III 600V CAT IV 300V	CAT III 600V	CAT III 600V (3281) CAT IV 600V (3282)	CAT III 600V	CAT III 600V
Measurement categories (V)	None	CAT III 300V/ CAT II 600V	CAT IV 600V	CAT III 300V/ CAT II 600V	CAT III 600V
Core jaw dia	φ30 mm	φ33 mm	3281: φ33 mm 3282: φ46 mm	φ35 mm	3284: φ33 mm 3285: φ55 mm
Power supply	CR2032 (3VDC) × 1	CR2032 (3 VDC) × 1	6F22 (006P) × 1	CR2032 (3VDC) × 1	6F22 (006P) × 1 or AC adapter
Dimensions and mass	50W × 136H × 26D mm /115 g	57W × 175H × 16D mm /100 g	3281: 62W × 216.5H × 39D mm/350 g 3282: 62W × 231H × 39D mm/400 g	3287: 57W × 180H × 16D mm/170 g 3288/-20: 57W × 180H × 16D mm/150 g	3284: 62W × 230H × 39D mm, 460 g 3285: 62W × 260H × 39D mm, 540 g

### New insulated sleeves prevent short-circuits

No sleeves attached to the tip of test leads?  
**DANGER of short-circuit accident!!**

With sleeve attached to the tip of test leads,  
**short-circuit accidents can be prevented.**

Previous  
model



**NEW!**



Conforms to safety standard

IEC61010-031 (revised) for hand-held probes

What are the new and additional requirements of the international safety standards?

- "Exposed metal part must be 4mm or shorter" (Previously, 19mm max.) for CAT III and IV environments to prevent short-circuits from occurring.
- Double-coating with different colors enables you to identify the wear condition of the test leads. (Previously, single-coated)

## Line-up to Suit Your Needs

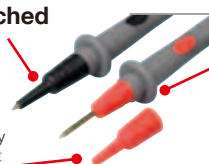
CM4371 True RMS CM4373 True RMS	3290 True RMS 3290-10 True RMS	3293-50 True RMS	3283 True RMS 3283-20 True RMS	3286-20 True RMS
AC, AC+DC (Measurement value, Peak value) CM4371: 20.00/600.0A AC CM4373: 600.0/2000A AC	3290/-10+CT9691: 20.00A/100.0A AC 3290/-10+CT9692: 20.00A/200.0A AC 3290/-10+CT9693: 200.0A/2000A AC AC+DC, AC True RMS, AC MEAN	30.00 m/300.0 m/ 6.000/60.00/600.0/1000 A AC	10.00m/100.0m/ 1.000/10.00/200.0 A AC	20.00/200.0/1000 A AC
DC (Measurement value, Peak value) CM4371: 20.00/600.0A AC CM4373: 600.0/2000A AC	3290/-10+CT9691: 20.00A/100.0A DC 3290/-10+CT9692: 20.00A/200.0A DC 3290/-10+CT9693: 200.0A/2000A DC	None	None	None
AC, AC+DC (Measurement value, Peak value) 6.000/60.00/600.0/1000V AC	None	None	None	150.0/300.0/600 V AC
DC (Measurement value, Peak value) 600.0m/6.000/60.00/600.0/1500V DC	None	None	None	None
Resistance: 600.0 Ω to 600.0 kΩ Electrostatic capacity: 1.000 μF to 1000 μF Frequency: 9.999 Hz to 999.9 Hz Continuity: 600.0Ω (Buzzer sounds less than approx. 25Ω ±10Ω) Temperature (K): -40.0 to 400.0 °C Diode check AC Voltage detection DC Power: 0.000 VA to 1020 kVA(CM4371) 0.000 VA to 3400 kVA(CM4373)	Frequency : 10.00Hz/100.0Hz/1000 Hz	None	Frequency: 30.0 to 1000 Hz Filter function: 180Hz±30Hz/-3dB	Power (Single-phase or 3 phase): 3kW to 600kW(Single-phase) 6kW to 1200kW(3-phase) Power factor, Phase angle: Frequency: 30.0 to 1000Hz Voltage/current harmonic levels
None	DC, or AC Current : 2V/f.s. Level output with REC mode Waveform output with MON mode Integ./Frequency : 1V/f.s.	None	3283: DC, or AC 1V / f.s. (200A range:2V / f.s.) Level output with REC mode Waveform output with MON mode 3283-20: None	None
AC current: ±1.3% rdg. ±3 dgt. AC voltage: ±0.9% rdg. ±3 dgt. DC current: ±1.3 % rdg. ±8 dgt.(CM4371) ±1.3 % rdg. ±3 dgt.(CM4373) DC voltage: ±0.5 % rdg. ±3 dgt.	AC/DC/AC+DC Current: ±1.3 % rdg. ±3 dgt. (Typical) Frequency: ±0.3 % rdg. ±1 dgt. (Typical)	AC current: ±1.5 % rdg. ±5 dgt.	10m to 10A range: ±1.0 % rdg. ±5 dgt. 200A range: ±1.5 % rdg. ±5 dgt. Frequency: ±0.3 % rdg. ±1 dgt.	AC current: ±1.3 % rdg. ±3 dgt. AC voltage: ±1.0 % rdg. ±3 dgt. Power: ±2.3% rdg. ±5 dgt.(1f) ±3.0% rdg. ±10 dgt.(3f) (Accuracy guaranteed only for 50/60Hz cosφ=1)
DC, 10 to 1kHz	DC to 500Hz (CT9691) DC to 1kHz (CT9692, CT9693) ±2.3 % rdg. + 8 dgt.	45 to 400Hz	40 to 2 kHz	AC current: 45 to 1kHz AC voltage: 30 to 1kHz
5 times/s (excluding electrostatic capacity, frequency, and temperature)	3290 FAST : 4 times/sec (3290-10 AC, AC+DC FAST: 10 times/sec) Normal : 2 times/ s, Slow : 1 time / 3s	Maximum 1.1 sec	2 or 4 times /sec (Slow: 1 time /3 sec)	Normal: 1 time /sec (Slow: 1 time /3 sec)
CM4371 [20 A range]: 7 CM4371/CM4373 [600 A range]: 3 (greater than 500 A and less than or equal to 600 A: 2.5) CM4373 [2000 A range]: 2.84 (greater than 1000 A and less than or equal to 2000 A: 1.42)	2.5 or less	2.8 or less (1.68 at 1000 A range)	2.5 (1.5 at 200A range)	2.5 (1.7 at 1000 A, 600 V range)
CM4371: 2.00A or less at 400 A/m CM4373: 2.0A or less at 400 A/m	CT9691 : 0.5 A equivalent max. at 400 A/m CT9692 : 0.7 A equivalent max. at 400 A/m CT9693 : 2.0 A equivalent max. at 400 A/m	7.5 mA equivalent max. at 400 A/m	7.5 mA equivalent max. at 400 A/m	1.00 A equivalent max. at 400 A/m
1000V AC rms	600 V AC rms	300 V AC rms	300 V AC rms	600 V AC rms
CAT III 1000V CAT IV 600V	CAT III 600V (Sensor rating)	CAT III 300V	CAT III 300V	CAT III 600V
CAT III 1000V/ CAT IV 600V	None	None	None	CAT III 600V
CM4371: φ33 mm CM4373: φ55 mm	CT9691 : φ35 mm CT9692 : φ33 mm CT9693 : φ55 mm	φ24 mm	φ40 mm	φ55 mm or 80mm busbar
LR03 Alkaline battery ×2	LR6 (AA) alkaline batteries × 4 or AC adapter or +8.4 to 15.6 VDC external power (3290-10 only)	CR2032 (3VDC) × 1	3283: 6F22 (006P) × 1 or AC adapter 3283-20: 6LR61 × 1 or 6F22 (006P) × 1	6LR61/6LF22 (006P) × 1
CM4371: 65W × 215H × 35D mm, 340 g CM4373: 65W × 250H × 35D mm, 530 g	3290/-10 : 155W × 98H × 47D mm/545 g CT9691 : 53W × 129H × 18D mm/230 g CT9692 : 62W × 167H × 35D mm/410 g CT9693 : 62W × 196H × 35D mm/500 g	50W × 130H × 26D mm/135 g	62W × 225H × 39D mm/400 g	100W × 287H × 39D mm /650 g

Accessories : TEST LEAD L9208/ L9207-10/ L9207-30		
Sleeve attached	CAT IV 600V	When the CAT (measurement category) rating of the main unit is lower than that of test leads, the CAT of the main unit takes precedence. <b>When measuring in a CAT IV or CAT III environment, be sure to attach the sleeve to the test leads.</b>
	CAT III 1000V	
No sleeve attached	CAT II 1000V	

**Sleeve attached**  
CAT III, CAT IV

**No sleeve attached**  
CAT I, CAT II

**Sleeve**  
included as a standard accessory (This sleeve cannot be attached to previous products)



**Detachable!**

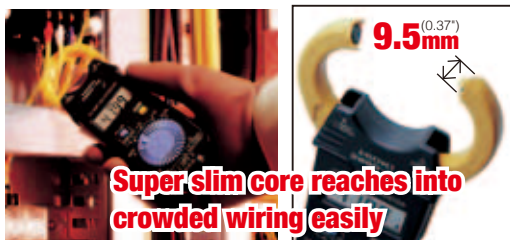
When a sleeve is not attached, the test leads can only be used in a CATII environment.

# Pocket size CLAMP SERIES

## CLAMP ON AC/DC HiTESTER 3280

### Easy operation !

- 3280-10: MEAN Value / 3280-20: True RMS
- AC 1000 A clamp aperture: 33 mm dia.
- 100g light and 16mm slim
- Independent-opening double-lever design
- Slim body allows easy clamping even for narrow conductors
- No metal (iron core) exposure, ensuring enhanced safety



#### Order Code

3280-10 (MEAN value)  
3280-20 (True RMS)

#### Accessories

TEST LEAD L9208 x1  
CARRYING CASE 9398 x1  
Instruction manual x1

3280-20



Guaranteed for 3 years



3280-20



## CLAMP ON AC/DC HiTESTER 3287 3288

### Compact & easy, one-touch maintenance on all types of AC/DC equipment

- New Model 3288-20 True RMS AC/DC pocket clamp meter measuring up to 1000 A further expands the HIOKI lineup
- The 3287 can handle even cogenerator / inverter energy-saving equipment (10/ 100A)
- Use the 3288 for high current measurements such as UPS emergency batteries and train motors (100/ 1000A)
- A slim core of only 10 mm (0.39") for easy clamping even in crowded wiring

#### Order Code

3287 (True RMS, 100 A AC/DC)  
3288 (MEAN value, 1000 A AC/DC)  
3280-20 (True RMS, 1000 A AC/DC)

#### Accessories

TEST LEAD L9208 x1  
CARRYING CASE 9398 x1  
Instruction manual x1

3288-20



Guaranteed for 3 years

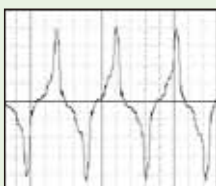


3287/ 3288-20



### True RMS vs. MEAN Value

Two ways to convert alternating current to RMS are "true RMS response" and "average rectified RMS response" (averaging). Both display the same value for a sine wave, but can display very different values for distorted waveforms.



When measuring current waveforms distorted by inverters...

**True  
RMS**

AUTO  
~ 8.56 A

High-frequency waveform components are included in the calculated RMS display value.

**MEAN  
Value**

AUTO  
~ 7.35 A

The measured waveform is treated as a single-frequency (undistorted) sine wave, and the calculated average of the AC signal is converted to an RMS display value. Measurement error increases with waveform distortion.

- As inverters and switching power supplies proliferate, the need for the capability to measure distorted current waveforms grows.

**A true RMS clamp-on current meter is the proper tool for accurate measurements.**

# HIGH PERFORMANCE CLAMP SERIES

## DIGITAL CLAMP ON HI-TESTER 3281 3282

The true RMS is shown in the distorted waveform

- 3281: 600A ACrms,  $\Phi$ 33mm dia.
- 3282: 1000A ACrms,  $\Phi$ 46mm dia.
- Non-fuse type protects up to 600VAC

### Order Code

3281 (True RMS, 600 A AC)  
3282 (True RMS, 1000 A AC)

### Accessories

TEST LEAD L9207-10 x1  
CARRYING CASE 9399 x1  
Hand strap x1  
Instruction manual x1  
Stacked manganese battery (6F22) x1



3282

Not CE Marked

3281

True RMS



## AC/DC CLAMP METER CM4371 CM4373

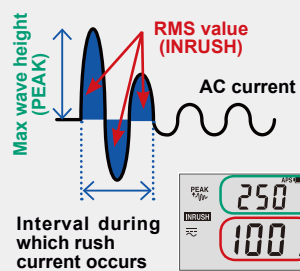
New

Rugged clamp meters for the toughest situations

- CM4371: 600 Arms, clamp aperture: 33 mm dia.
- CM4373: 2000 Arms, clamp aperture: 55 mm dia.
- Multiple measurement functions such as current, voltage, resistance, frequency, and voltage detection
- Expanded -25 °C to 65 °C operating temperature range
- IP54 dustproof and waterproof enclosure
- \*Jaws (current sensor portion): IP50
- Remain alert to hazards with a red backlight and beeping tone

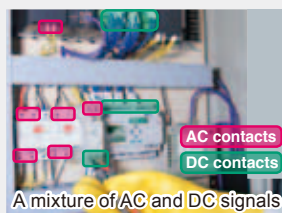
### Inrush (Rush current)

The CM4371 and CM4373 can simultaneously measure inrush current in RMS as well as maximum crest values at motor startup and for welding currents. The clamp meters automatically detect the duration of the inrush current (which can range from several dozen milliseconds to several hundred milliseconds).



### Automatic AC/DC detection

Simply rotate the rotary switch to the CURRENT MEASUREMENT or VOLTAGE MEASUREMENT function to take measurements after automatically detecting whether the signal is AC or DC. Since this functionality eliminates the need to operate the rotary switch in locations where AC and DC wires are intermingled, it helps boost work efficiency.



3 years  
Guaranteed for 3 years

CE  
True RMS

CM4371

CM4373



### Order Code

CM4371 (True RMS, 600 A AC/DC)  
CM4373 (True RMS, 2000 A AC/DC)

### Accessories

TEST LEAD L9207-10 x1  
CARRYING CASE C0203 x1  
LR03 Alkaline battery x2  
Instruction manual x1

### Options

TEST LEAD L9207-10 Options		THERMOCOUPLES(K)	DT4910
CONTACT PIN SET	L4933		
SMALL ALLIGATOR CLIP SET	L4934		
CONNECTION CABLE L4930 Options			
CONNECTION CABLE SET	L4930		
EXTENSION CABLE SET	L4931		
TEST PIN SET	L4932		
ALLIGATOR CLIP SET	L4935		
BUS BAR CLIP SET	L4936		
MAGNETIC ADAPTER SET	L4937		
TEST PIN SET	L4938		
BREAKER PIN SET	L4939		
GRABBER CLIP	9243		

# HIGH PERFORMANCE CLAMP and Detachable Designs

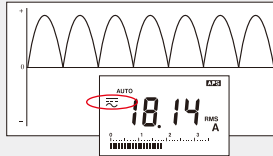
## CLAMP ON AC/DC HiTESTER 3284 3285

### Analysis for DC to distorted waves

- 3284: 200 Arms, clamp aperture: 33 mm dia.
- 3285: 2000 Arms, clamp aperture: 55 mm dia.
- Inrush current peak value
- RMS value of full-wave rectified waveforms
- Waveform and harmonic analysis

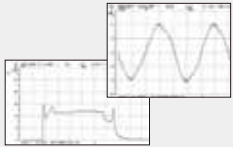
#### RMS value of **full-wave rectified waveforms**

The AC+DC mode enables measurement of the RMS value of full- or half-wave rectified waveforms used in electrical machinery.



#### Easily monitor current fluctuations

Using the external output functions of the 3284 or 3285 in combination with a HIOKI Memory HiCorder enables recording of current and frequency fluctuations and recording and harmonic analysis of instantaneous waveforms.



3284

3285



Not CE Marked

**True RMS**

#### Order Code

3284  
3285

#### Accessories

TEST LEAD	L9207-10 x1
CARRYING CASE (for 3284)	9399 x1
CARRYING CASE (for 3285)	9345 x1
Hand strap x1	
Instruction manual x1	

#### Options

AC ADAPTER (for USA)	9445-02
AC ADAPTER (for EU)	9445-03
CLAMP ON ADAPTER	9290-10
OUTPUT CORD (Not CE marked)	9094
CONNECTOR ADAPTER (BNC to banana [female])	9199

## CLAMP ON AC/DC HiTESTER 3290 CLAMP ON AC/DC SENSOR CT9691 CT9692 CT9693

### All the Functions You Need for Measurement at DC or 1Hz and Up

- Choice of three sensors (Example combinations)
  - 3290/-10 +CT9691 : Measure up to 100A (φ35mm)
  - 3290/-10 +CT9692 : Measure up to 200A (φ33mm)
  - 3290/-10 +CT9693 : Measure up to 2000A (φ55mm)
- Choice of measurement methods
  - DC (for battery measurement)
  - AC+DC RMS (for full-/ half-wave rectification measurement)
  - AC RMS (for current distortion measurement)
  - PEAK (for peak value measurement of inrush current, etc.)
- Choice of output (Simultaneous output)
  - RMS value output, frequency output, waveform output
- Choice of response times (Switchable among three response times)
- LPF function (filters out unnecessary harmonics :  $f_c=550\text{Hz}$ )
- 3290-10 Functions
  - Current integral measurement (obtain polarity-specific integrated DC values)
  - Operating time/duty measurement



Guaranteed for 3 years

**True RMS**

Measurement is not available with only the **CLAMP-ON AC/DC HiTESTER 3290** or **3290-10**. A **CLAMP-ON AC/DC SENSOR** (Model CT9691, CT9692 or CT9693) must also be purchased separately.

#### Order Code

3290  
3290-10 (with integral current measurement)

#### Accessory

Hand strap x1 Instruction manual x1  
LR6(AA)alkaline batteries x4

#### Options

CLAMP ON AC/DC SENSOR (100A)	CT9691	OUTPUT CORD	9094
CLAMP ON AC/DC SENSOR (200A)	CT9692	(Not CE marked)	
CLAMP ON AC/DC SENSOR (2000A)	CT9693	CARRYING CASE	9400
AC ADAPTER (for USA)	9445-02	CONNECTOR ADAPTER	9199
AC ADAPTER (for EU)	9445-03	(BNC to banana [female])	

# Flip CLAMP and Leak CLAMP SERIES

## CLAMP ON HITESTER 3291-50

## CLAMP ON LEAK HITESTER 3293-50

FLIP CLAMP CE True RMS

**Easily read measured values from all heights with the adjustable display**

### 3291-50 Overview

- Innovative flip clamp design
- Flip display to see measurement readings from any angle
- Max. 1000A, 3 ranges, Bar graph display
- Filter out high frequency noises for a clean signal

### 3293-50 Overview

- Measure for leakage current and load all with the same device
- Innovative flip clamp design
- Flip display to see measurement readings from any angle
- 1mA to 1000A accuracy guaranteed, 6 ranges and bar graph display
- Measure and display only the leakage current of commercial frequency components using the filter function

3291-50



3293-50



#### Order Code

3291-50  
3293-50

#### Accessories

CARRYING CASE 9757 x1  
Hand strap x1  
Instruction manual x1  
Coin type lithium battery (CR2032) x1

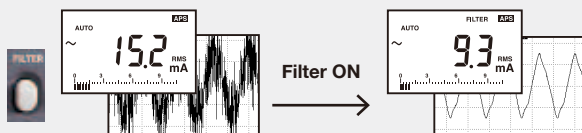
## CLAMP ON LEAK HITESTER 3283

### 1mA to 200A AC Leakage Current Clamp Meter with 10 $\mu$ A Resolution to Analyze Distorted Waveforms

- Measure leak current using highly sensitive 10 $\mu$ A resolution (at 10.00 mA range)
- Indicate 50/60 Hz leak current components with the filtering function
- Monitor leak current conditions in combination with a Memory HiCorder (monitor output, Model 3283 only)
- 3283-20: EN 61010-2-032:2012 Type A to measure uninsulated hazardous live conductors such as busbars

#### Filtering

Sharp Low-pass filter reduces harmonic currents.

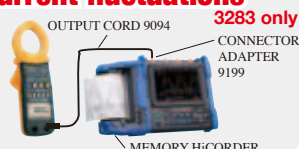


#### Output signal 3283 only



#### Easily monitor leakage current fluctuations

In combination with a HIOKI Memory HiCorder the 3283 can be used for long-term monitoring for leakage current fluctuations.



CE  
3283-20

Not CE Marked

3283



Insulated conductor

True RMS



3283-20

#### Order Code

3283  
(with analog/ waveform monitor output)  
3283-20  
(without analog/ waveform monitor output)

#### Options

AC ADAPTER (for USA) 9445-02  
AC ADAPTER (for EU) 9445-03  
CLAMP ON ADAPTER 9290-10  
OUTPUT CORD 9094  
(Not CE marked)  
CONNECTOR ADAPTER 9199  
(BNC to banana [female])

#### Accessories

CARRYING CASE 9399 x1  
Hand strap x1 Instruction manual x1  
3283: Stacked manganese battery (6F22) x1  
3283-20: Alkaline battery (6LR61) x1

## CLAMP ON POWER HITESTER 3286-20



### All powerful ! Easy operation ! True-RMS Clamp-on Power Meter !

- Use as a single-phase power meter or power factor meter (3kW to 600kW range)
- Simple checking of three-phase lines (6kW to 1200kW range)
- Check power supply fluctuations
- 1000 A, 1000 Hz, peak and harmonic measurement
- True RMS (effective value) display method



#### Basic specifications

Measurement lines	Single-phase/two-wires, Three-phase/three-wires (balanced load only)
Measurement items	Voltage, current, voltage/current peak, effective/reactive/apparent power(Single-phase or 3-phase), power factor, reactivity, phase angle, frequency, phase detection(3-phase), voltage/current harmonic levels(up to 20th)
Measurement ranges	Voltage: 150.0 V to 600 V, 3 ranges, Current: 20.00 to 1000 A, 3 ranges, Power: 3.000 kW to 1200 kW, 18 combination patterns, Note: 3-phase power is calculated and displayed on the basis of a balanced, 50/60 Hz, sine wave input. For apparent power and reactive power, the unit of watts in the above table is replaced by VA and var respectively.
Basic accuracy at 50/60 Hz, $\cos \phi=1$	Power/single-phase: $\pm 2.3$ % rdg. $\pm 5$ dgt., Power/3-phase: $\pm 3.0$ % rdg. $\pm 10$ dgt. (at balanced load) Voltage: $\pm 1.0$ % rdg. $\pm 3$ dgt. (True RMS), Current: $\pm 1.3$ % rdg. $\pm 3$ dgt. (True RMS)
Frequency characteristics	AC current : 45 to 1 kHz AC voltage : 30 to 1 kHz
Other functions	Phase detection, Record (Max. value/Min. value), Battery capacity display, Data hold, Auto power off

#### Order Code

3286-20

#### Accessories

VOLTAGE CORD L9635-01 x1  
CARRYING CASE 9245 x1  
Hand strap x1 Instruction manual x1  
Stacked alkaline battery (6LF22) x 1

**⚠ WARNING** Inspect the unit and check that it is operating correctly before use. When carrying out measurement on live lines, wear proper protective gear, insulating rubber gloves, insulating rubber boots and safety helmet, and use extreme caution to avoid electric shock accidents.

**⚠ DANGER** In order to prevent short-circuits and injury, use the clamp product on electrical circuits with a voltage less than the maximum operation circuit voltage.

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.

# HIOKI

HIOKI E. E. CORPORATION

#### HEADQUARTERS

81 Koizumi, Ueda, Nagano, 386-1192, Japan  
TEL +81-268-28-0562 FAX +81-268-28-0568  
<http://www.hioki.com/> / E-mail: os-com@hioki.co.jp

#### HIOKI USA CORPORATION

TEL +1-609-409-9109 FAX +1-609-409-9108  
<http://www.hiokiusa.com/> / E-mail: hioki@hiokiusa.com

HIOKI (Shanghai) SALES & TRADING CO., LTD.  
TEL +86-21-63910090 FAX +86-21-63910360  
<http://www.hioki.cn/> / E-mail: info@hioki.com.cn

HIOKI INDIA PRIVATE LIMITED  
TEL +91-124-6590210  
E-mail: hioki@hioki.in

HIOKI SINGAPORE PTE. LTD.  
TEL +65-6634-7677 FAX +65-6634-7477  
E-mail: info-sg@hioki.com.sg

HIOKI KOREA CO., LTD.  
TEL +82-2-2183-8847 FAX +82-2-2183-3360  
E-mail: info-kr@hioki.co.jp

DISTRIBUTED BY